



Imaging

INCREMENTAL VALUE OF CORONARY CT ANGIOGRAPHY OVER STRESS TESTING IN PREDICTING OUTCOMES AND RESOURCE UTILIZATION

ACC Moderated Poster Contributions

McCormick Place South, Hall A

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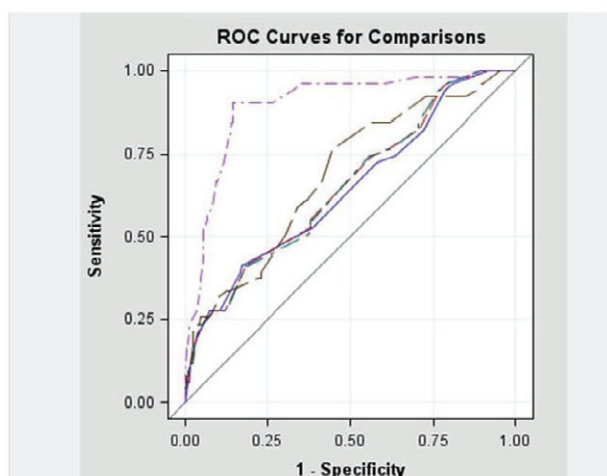
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Background: The incremental prognostic value of coronary CT angiography (CCTA) over stress testing has not been well-studied.

Methods: We included patients without prior coronary artery disease (CAD) undergoing CCTA after stress testing within 3 months, divided into 3: normal, equivocal or abnormal stress tests. Demographics, downstream major adverse cardiac events (MACE) (death, acute coronary syndromes and revascularization) and resource utilization (CAD-related hospitalizations and emergency department visits, stress tests, invasive coronary angiography and surgical/percutaneous revascularization) were compared among the groups.

Results: 2537 patients (mean age 57 ± 12 years, 49% males, 68% myocardial perfusion imaging, 20% stress echocardiography, 12% stress EKG) were included. Overall, 19.7% had a coronary stenosis $>50\%$ on CCTA, with no differences among the 3 stress test result groups ($p = 0.63$). At median follow-up of 370 days, MACE and resource utilization were 4.2% and 27.5%, with no differences among the 3 groups ($p = 0.60$ and $p = 0.44\%$). Stenosis $>50\%$ on CCTA was the strongest predictor of MACE (Figure).

Conclusions: CAD severity assessed by CCTA provides significant and incremental value over clinical risk and stress test results for predicting MACE and resource utilization at intermediate-term follow-up.



— Framingham Risk Score (0.6414)

- - - + Additional risk factors (COPD, PVD) (0.6533)

- . - . - + ACC/AHA Pretest Likelihood (0.6513)

- - - - - + Abnormal Stress Test Result (0.6844)

- . - . - + $>50\%$ stenosis on CCTA (0.8958)